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► **To cite this version:**

Anne Bartel-Radic. Intercultural Learning in Global Teams. *Management International Review*, 2006, 46 (6), pp.647-678. 10.1007/s11575-006-0121-7. hal-03566013

HAL Id: hal-03566013

<https://hal.univ-grenoble-alpes.fr/hal-03566013>

Submitted on 11 Feb 2022

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Anne Bartel-Radic

Intercultural Learning in Global Teams

Abstract and Key Results

This case study research combines qualitative and quantitative data in order to answer the critical question, how is intercultural competence developed and spread in a multinational company? This study also suggests that the link between the existence of global teams and the performance of an international company is indirect: global teams help to develop intercultural competencies; they, in turn, contribute to performance. Intercultural interaction among the employees of a company, especially within global teams, provides the highest learning potential for intercultural competence. Long-time interaction, care and conflict characterize global teams. These characteristics permit learning to result from intercultural interaction.

Key Words

Intercultural Learning, Global Teams, Intercultural Competence, Multinational Company

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To quote this document:

Bartel-Radic, A. (2006). Intercultural learning in global teams.
Management International Review, 46(6), 647-678.

Abbreviated Heading: Intercultural Learning in Global Teams

Introduction

Intercultural competence fundamentally influences the performance of international companies in several significant ways. Management research considers intercultural competence as an important condition for the success of intercultural business relationships and performance in foreign markets, in the areas of expatriation (Black 1990, Clarke/Hammer 1995, Bilkey/Tesar 1977, Müller 1996, Reid 1980), customer-supplier relationships (Bush et al. 2001, Usunier 1997), and efficient interaction within multinational companies (Ralston et al. 1995). Consequently, intercultural competence can be a strategic organizational competence for multinational companies (Eubel-Kasper 1997, Klimecki/Probst 1993, Iles 1995, Saner et al. 2000): “the intercultural competence of individuals and organizations has a high economic impact which becomes obvious in a multitude of situations” (Gauthey 1998, p. 15).

Yet, while the importance of intercultural competence has been pointed out many times, its development and transmission within organizations has not been established clearly. Specific barriers to intercultural competence include several challenges. Recruitment of interculturally competent people is not always possible. Management training, based on conferences, seminars and readings (Peretti 1993, p. 172), and coaching (Barmeyer 2000) is considered too expensive or inefficient by many top managers. Furthermore, the focus on cultural differences and culture-specific problems can be dangerous, for it sometimes increases prejudices and reinforces a stereotyped world-view (Chevrier 2000, Gohard-Radenkovic 1998). Thus, managers find themselves in an “evident impossibility to act” (Bosche 1993, p. 265) concerning intercultural competence.

Research Question

This research aims to find a way beyond this dilemma: how can managers build intercultural competence, given their “evident impossibility to act”? Intuitively, literature on diversity in organizations and teams seems to be helpful here. In their review of 34 contributions to the impact of diversity in organizations, Milliken/Martins (1996) quote several studies that conclude that diverse teams consider more possible solutions for decision-making and cooperate more intensely under certain conditions. If negative aspects do not overwhelm these benefits, intercultural teams outperform homogeneous ones, a result that makes diversity a

resource for companies (DiStefano/Maznevski 2000), and even a strategic resource for the construction of dynamic competencies (Van Maanen/Laurent 1993, Hamilton 2001). The value of culturally diverse personnel also may lead to the efficient management of diversity and to the establishment of particular cultural groups in a precise strategic context. Snow et al. (1996) conclude that transnational teams are at the heart of the globalization process and that every international company should build and encourage such teams. In general, “socialization,” as it occurs in intercultural teams, has the capacity to transmit and create tacit knowledge (Nonaka 1994). This process might apply to intercultural competence.

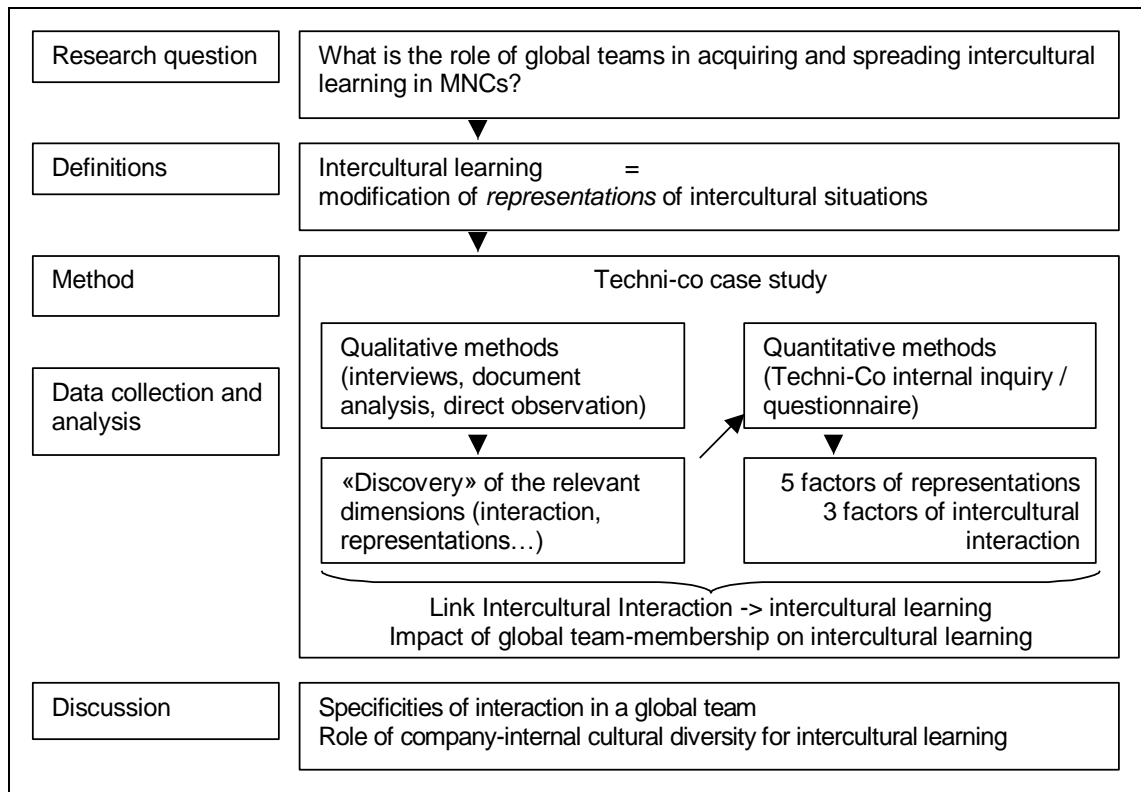
Thus, the purpose of this research is to question the role of global teams and other mechanisms in acquiring and spreading intercultural competence in multinational companies (MNCs).

The results of this study show that global teams are the most important contributor in organizations to the development of intercultural competence. In consequence, this research adds a new aspect to our understanding of the link between global teams and a firm’s performance.

I arrived at this conclusion by investigating the process of intercultural learning in Techni-Co1¹, a French MNC. This first section of this paper has introduced the research question. In the second section, I begin with some definitions. Then I look at the design and method of this study, whose approach is inductive, beginning with a short description of Techni-Co. The fourth section describes the process of qualitative and quantitative data collection and then reviews the results. These results show that global teams better enable intercultural learning than does, for example, contact with foreign customers. Analysis also suggests some explanatory hypotheses. A final discussion section returns to the literature to review the characteristics of interaction in global teams and the potential of this interaction to generate learning.

Figure 1 summarizes the research process. The structure of the paper corresponds to this process: the elements in the left column are the five section headings of this paper.

Figure 1. Description of the Study and Structure of the Paper



Definitions

Today, cross-cultural business practices and global markets are increasingly important for multinational corporations and are fraught with a variety of intercultural difficulties. Culture, a dynamic system of references that is shared by the members of a group (Bosche 1993), establishes pre-orientations which limit or modify people's rationality (L'Hermitte 1998). National cultures (Hofstede 1991) play a significant role in several aspects of international business:

- Studies on expatriation (e.g. Gauthey et al. 1988) indicate that international assignments often incur unnecessarily high costs, poor job performance, individual and family adjustment problems, and difficulties in maintaining productive and satisfying social relationships with people from the host culture.
- International joint-ventures and mergers frequently do not achieve the expected performance (Bauchard 2001, L'Hermitte 1998, Franck 2000).

- Cultural differences provide the greatest potential to hinder effective interaction within global teams (DiStefano/Maznevski 2000).

A large body of research confirms that the predominant reason for such failure is not due to lack of managerial technical competence, but to the dynamics of intercultural experience (Cerdin/Peretti 2000, Clarke/Hammer 1995, Deller 1996). These dynamics include differences in cultural perceptions, in values and practices which influence understanding, in attitudinal satisfaction with living in a foreign culture, in relationship development, and in the accomplishment of goals (Hall 1990, Hofstede 1991, Adler 1991).

Authors on intercultural interaction suggest a wide range of terms for people's ability to deal with these difficulties. Bush et al. (2001) and Knapp (1995) use the concept of intercultural communication competence, while Cui/Van den Berg (1991) chose the term of intercultural effectiveness. Following the choice of many authors (Bender 1996, Bittner/Reisch 1994, Bolten 1998, Dirks 1995, Hofstede 1994, Iles 1995, Kiechl 1997, Knapp/Knapp-Potthoff 1990, Opitz 1997), this paper also uses the term *intercultural competence*. The concept of competence includes cognitive, behavioral and affective dimensions (Aubret et al. 1993, McClelland 1973), all of which all are relevant for effective intercultural communication and interaction (Dirks 1995, Kiechl 1997, Iles 1995). Our definition of intercultural competence is the ability to understand the meaning of intercultural interaction and the ability to adapt one's behavior to these meanings in order to produce efficient behavior.

Literature shows that intercultural competence is partially inherited and partially acquired through learning. Several inherited personality traits, such as empathy, open-mindedness and emotional stability, confer a higher intercultural competence (Black 1990, Bush et al. 2001, Clarke/Hammer 1995, Eubel-Kasper 1997, Hannigan 1990, Kiechl 1997, Knapp 1995, Kühmann/Stahl 1998). But one can also acquire intercultural competence by a learning process, passing through realization of the impact of cultural differences, critical reflection and practical experience (Hofstede 1994, Kiechl 1997, Pateau 1998). This process will be called here *intercultural learning*. The term intercultural learning is mostly used in literature the way it is understood here (Gohard-Radenkovic 1998, Murphy-Lejeune 1993, Klimecki/Probst 1993). Others, especially those in educational psychology, use this term to designate general learning processes in an intercultural context. This is not our meaning here.

Intercultural learning is considered here as learning on intercultural issues, not learning in environments that happen to be intercultural.

Scholars generally agree that experience in intercultural situations plays a major role in intercultural learning. This experience is called *intercultural interaction* (Funke 1995). Funke distinguishes between indirect interaction, through the media, for example, and direct interaction, when meeting people from another culture and talking with them. Face-to-face situations, conversation and language are the typical characteristics of this direct interaction (Berger/Luckmann 1966). Others use the term *interculturalization* to describe the process of interaction between individuals or groups from different cultures (Denoux 1995, p. 20).

Yet, simply meeting people from other cultures is far from being a sufficient condition for the acquisition of intercultural competence (Nicklas 1995). The acquisition of intercultural competence is encouraged by positive emotion and the desire to learn (Amado 1995, Bittner 1996, Getz/Laroche 1996). Critical reflection on one's own culture is also necessary (Eubel-Kasper 1997), which means a profound change in mindsets occurs.

In a general understanding, *learning* is defined by psychologists as “the acquisition or the modification of a representation of environment” (Doré/Mercier 1992, p. 2). Representations are mental states (ideas, concepts, beliefs, desires, knowledge) through which a person represents the world. This definition integrates the product of learning (representation) and its process (acquisition, modification). Representations are highly influenced by culture. But the impact of culture is especially strong concerning areas such as what is good or bad, how things should be done, and what is correct behavior. Intercultural learning does not mean to change one's own culture, but to understand that other ways of seeing are also valid, and that for effective interaction a compromise needs to be found. In other words, adaptation is relative, taking into account one's own and the other culture (Amado 1998).

Building on this definition of learning, *intercultural learning* is the acquisition or modification of the representations of intercultural situations. Representations of intercultural situations include the cognitive and affective elements of intercultural competence and are closely linked to the behavioral element, the question of how to behave in intercultural situations. In a general context, such representations concern what an intercultural situation is like, what it means, or what the consequence of meeting people from another/that specific

culture may be. In this study, the concept of representation is used to operationalize the concept of intercultural learning, as developed below.

Method

This study is based on an inductive research design, taking evidence from a single in-depth case study in the MNC Techni-Co.

Inductive research design based on in-depth case study

Intercultural competence in the context of international business has been discussed by a number of authors, as described in the previous section. Yet neither consensual definition nor measures of the concept have been developed. Moreover, to date, most scholars only have speculated on how intercultural learning processes might arise in international organizations. That is why this research question still remains poorly understood. In such a context, a deductive research design appears to be neither desirable nor possible.

Here the aim is to develop theory based on peoples' experiences in intercultural relationships and the competencies necessary for them. With theory-generation in mind, I set out to investigate under what conditions people develop intercultural competencies in a business context. This question required the development of a conceptualization of what constitutes intercultural competence and how it is leveraged in general. Necessary definitions have been reviewed above.

In this context of discovery of a poorly known subject, a case study appears to be an appropriate research strategy. "A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, when the boundaries between the phenomenon and context are not clearly evident, and in which multiple sources of evidence are used" (Yin 1989, p. 23). In consequence, the case study method matches especially well the "how" research questions, as is the case here. Case study research is capable of providing testable, novel and empirically valid theory (Eisenhardt 1989).

There is no consensus among scholars concerning the number of cases needed in order to answer a research question. Science is a process including theory generation through inductive methods, followed by the testing of these theories. Single case studies are one element of this process among others, and their use is most valuable at the beginning of the inductive phase of the process. They frequently permit interesting advances of the knowledge of organizations (Dyer/Wilkins 1991) because they allow context to be taken into account; in-depth analysis and description are possible. Stake (1994) points out that the uniqueness of a case and its interest justify by themselves this method. Multiple cases are further to be used if the aim is the construction of a general theory (Eisenhardt 1989, Stake 1994).

In this research project, I was present in the field for one year (July 2001 to June 2002). This in-depth observation and comprehension of the learning processes and their context, valuable as it may be, is, one must be aware, open to the various arguments against case study and qualitative research. This type of research design, like others as well, has a number of limitations, especially when its use is *evidentiary*. Yet here, the objective is to initiate our understanding of a poorly known phenomenon and to develop an exploratory perspective. In consequence, the results presented below are to be considered as propositions to be further tested in a deductive research design. In using a case approach in this situation, I aimed to satisfy the requirements of Eisenhardt (1989, p. 548) for case study research:

- The propositions that emerge from the process are to be “good theory” (parsimonious, testable, logically coherent – Pfeffer 1982).
- Methods and the evidence grounding the theory have to be strong.
- New insights should be found.

The Techni-Co case

The case studied here is an industrial MNC, a world-wide supplier in the automotive industry with headquarters in France. The MNC’s internationalization is high: 12 subsidiaries are situated in 10 countries (Europe, Americas and Asia). The company holds the leading position in its European market and is second world-wide.

This case was selected after a series of seven mini-cases were reviewed to determine the best criteria for case selection for in-depth study. Techni-Co best met the criteria, for these

reasons: First, relational and intercultural competencies were very important for this supplier in the automotive industry, because Techni-Co is closely involved in the vehicle development process of their customers. Second, the company's manageable size (2500 employees) allowed a survey among a significant number of employees and, in consequence, a better understanding of the research object. Third, while internationalization began a long time ago and the firm is highly international, intercultural learning processes began only quite recently, with the process of globalization of the firm starting in 1998. The first international teams within the firm were set up about six years ago, and many of them more recently. This circumstance limited the occurrence of memory biases.

Techni-Co's CEO provided me access to his company because he was interested in the research question and results (the only benefits for the company); I was a mere observer and did overt observation.

Up to 1995, Techni-Co was characterized by a very polycentric group structure and strong local adaptation, a situation that allowed for major cultural differences among the subsidiaries to continue. Customer relations were nearly always handled by the local unit, and interaction with foreign customers and members of other subsidiaries of the group was scarce. With new CEO leadership in 1998, the situation changed. International coordination of activities had become vital in the organization, but the new CEO also believed in the importance of cultural diversity and local adaptation. He gradually modified the group structure into a matrix organization based on cooperation and coordination of activities among the subsidiaries². This cooperation and coordination is carried out in international teams, a key element of Techni-Co's matrix organization.

The structural changes have resulted in an increase of interaction among the members of the different subsidiaries. There is no real centralization: the coordinators have no formal authority and their task is to encourage meetings and discussion in their international teams. The major team, Global Way, was set up in 2000 to design and introduce an enterprise resource planning system (ERP) to support coordination and control of activities. Currently, the team has 50 members. A second category of teams is composed of the functional directors, by function (marketing, quality control) across all Techni-Co's subsidiaries. Their meetings are less frequent than those of the Global Way team, and cooperation is less intense, but these functional teams have been in existence for several years now. A third category of teams is

built from the customer project groups. They are both international and inter-functional, working on customer (vehicle) projects.

Scholars disagree whether a case should be typical of a population and representative of the phenomenon being studied (Eisenhardt 1989, Yin 1989), or if an atypical case can provide a higher new learning (Stake 1994). There is no indicator for the typicality of a case and in both of the situations statistical generalization is impossible. Techni-Co is an atypical company for several reasons (very early internationalization, high decentralization to foreign subsidiaries for more than 100 years, and so on). Yet Techni-Co is ideal, and thus typical, for the observation of the analyzed phenomenon in this case, its international dimension: Techni-Co has close interaction with customers (global automotive firms) and high coordination among its highly independent subsidiaries.

“Grounded theory” and triangulation of methods

The analysis is based on Glaser/Strauss’ (1967) “Grounded Theory,” which allows theorizing from a unique case study (Langley 1999). Grounded Theory is a method of data treatment as well as a process that is used to generate theory. Both the method and process are closely linked. The Grounded Theory method is clearly inductive, as in this study: theory emerges from the data. The theorization is based on a specific treatment of the data that involves a systematic comparison of data and the gradual construction of a system of categories that describe the observed phenomenon (Langley 1999). The constructed system makes it possible to compare this new, “grounded” theory to existing, appropriate literature (Strauss/Corbin 1994).

One particularity of the Grounded Theory method is that data collection and theorization go on simultaneously. Thus, the general procedure of data collection for generating theory “is to elicit codes from raw data from the start of data collection through constant comparative analysis as the data pour in. Then the codes are used to direct further data collection, from which the codes are further theoretically developed with respect to their various properties and their connections with other codes until saturated” (Glaser 1978, p. 36). The provisional system of categories is equivalent to hypotheses which guide the researcher back to the field. This theoretical sampling is used to check on the emerging conceptual framework. “By raising

questions at this point in time, the researcher checks those issues while he still has access to the data” (Glaser 1978, p. 39). Thus, neither the sample nor the questions to ask can be defined entirely in advance, for they result from previous data and coding. In consequence, grounded research is not a linear process, but is “composed of a set of double-back steps” (Glaser 1978, p. 16).

Denzin (1970 1978, and 1994) has discussed in-depth what he calls the strategy of triangulation in data collection. The triangulation of data and methods, the combination of qualitative and quantitative methods, reinforces the internal validity of the results of a case study (Yin 1989). This is why quantitative data and methods can be very helpful within the analysis of one specific case.

Contrary to general beliefs, Grounded Theory is not exclusive to qualitative research: “the grounded theory method, though uniquely suited to field work and qualitative data, can be easily used as a general method of analysis with any form of data collection: survey, experiment, case study. Further, it can combine and integrate them. It transcends specific data collection methods” (Glaser 1978, p. 6). Strauss/Corbin (1994, p. 277) even encourage researchers to “ground” their theories in mixed, qualitative and quantitative data: “in many instances, both forms of data are necessary.”

Data collection and analysis

Data collection and analysis for the Tech-Co case study were done following the guidelines detailed above. Grounded theory was used as a general method of analysis, integrating the qualitative and quantitative data.

Interviews

32 half-directive, in-depth interviews allowed for the collection of varied and rich qualitative data. 17 interviews were with members of the French subsidiary and headquarters, nine with employees of the German unit and four with Spanish group members. Two subjects external to the Techni-Co group delivered supplementary information. The interviews were conducted,

if possible, in the mother language of the interviewee (French, German or English). The interviewees were selected based on their role in the international and intercultural relations of the company and their membership on international teams. All levels of the company hierarchy were included as well as a majority of the functional areas. The interviews were transcribed and coded. In the interview process, I tried to be especially attentive to how context might shape people's thoughts, feelings and behavior and how these, in turn, might influence the development of intercultural competence.

The collection of qualitative data was completed by document analysis and direct observation of the work in three international teams. The team meetings of one or two days each took place in Spain and France during spring 2002.

Data were analyzed following the inductive research design and the "grounded" approach. They were systematically compared and categories describing the phenomena were gradually structured in an index tree. To reach a detailed grounding, which is "painstaking and takes time" (Glaser 1978, p. 16), I was assisted by the software program "N4 Classic" (NUD*IST Revision 4: "non-numerical unstructured data * indexing searching theorizing) to code qualitative data (interviews, documents and notes concerning direct observation). This software, especially appropriate for "grounded theorizing," facilitates coding and categorization operations as they have been described by Glaser: "Grounded theory is a detailed grounding by systematically analyzing data sentence by sentence by constant comparison as it is coded until a theory results. The result is that all data is conceptualized into categories and integrated into a theory. Data is used to illustrate the resulting theory. The focus is (...) on organizing ideas which emerged from [the data]" (1978, p. 16). Coding followed Glaser's "6C" classification (1978, p. 74). The "causes, contexts, contingencies, consequences, covariances and conditions" of intercultural learning at Techni-Co were indexed. The specific categories gradually arose during analysis, following the Grounded Theory approach.

The major insights resulting from the first phase of half-directive interviews were the following:

- Some members of Techni-Co had recently acquired intercultural competence.
- These competencies were unequally spread.

- The reasons for intercultural learning remained too unclear. As stated by the literature, intercultural interaction appeared to play a significant role. But the interviewees related very different aspects of this international and intercultural dimension. Some pointed out their language skills, others a job with frequent contact with foreign customers. The company's global teams and the recently established matrix structure also seemed to play important roles. But the weight and role of each of these aspects could not be distinguished by the interviews.
- As widely recognized, the concept of intercultural competence is very difficult to handle. Some actors easily distinguished strong cultural differences, while others believed in clear communication to avoid and rectify misunderstandings.

After a series of about 20 interviews, results started to saturate while no clear answer had been found to the research question. Following the logic of theoretical sampling, it appeared to be necessary to question many more members of the Techni-Co group and to systematically compare their answers to the questions. In this quest of "where (or what) next?" the use of quantitative methods seemed very promising for giving new insights. Triangulation of methods and data would also reinforce the internal validity of the study.

The survey and its role in the research process

Thus, a questionnaire was sent to 25 % of the employees of the ten subsidiaries.³ As in other parts of the research design, the questionnaire was set up in an inductive way and based on the qualitative results obtained from the earlier interviews. The aim was not to *test* emerging results, but to question emerging hypotheses and try to build better understandings of the nature of and the links among the emerging dimensions.

The group-internal questionnaire was composed of three groups of items, corresponding to three emerging dimensions:

- a series of 47 statements concerning the "representations"⁴ of intercultural interaction and intercultural learning (see below) were to be answered on 7 point Likert scales;
- 11 items aimed to measure the intensity of intercultural interaction of the person (5 point Likert scales) and the respondent's participation in an international team;

- contextual information (localization, age, function, hierarchical level) was solicited for control purposes (9 items).

The “representation” categories are highly contextual for the Techni-Co case; they provide information about the surroundings in which the analyzed intercultural interaction occurs. For any of the categories, several statements (see below) were picked out from the half-directive interviews. The research intention here was to fit the data as closely as possible to the case. Thus, the items proposed to the company members corresponded to their formulations.

The participants could chose French, German or English text versions. 239 completed questionnaires were collected in eight subsidiaries, which represent 42 % of the questionnaires sent, nearly 10 % of the employees of Techni-Co.

Quantitative data were also analyzed with inductive methods. I used SPSS 9.0 to perform factor and cluster analyses of both the representation and interaction variables. The connection between the first and the second dimensions above (representations and intensity of intercultural interaction) through mean value comparisons and linear regressions led to the major findings of this research. Details of these analyses will be explained below. The quantitative methods correspond to the steps required for Grounded Theory: categories were set up in an inductive way (factor and cluster analyses) and translated into concepts, and links between these concepts were (still inductively) questioned, which corresponded to the emerging theory. For evidence, these inductive quantitative methods do not conform to today’s mainstream quantitative research (confirmatory multivariate analyses). Yet they are consistent with the research design, set up conforming to the state of the art. Confirmatory analyses would have required a pre-existing, well-founded theoretical framework, which has not been the case up to now in this field.

These different steps of data collection are presented here as separate categories, but they did not take place in a linear process. For both methods, theorization consists of revealing plausible relations between particular concepts (Strauss/Corbin 1994, p. 278). In this process, the quantitative and qualitative data and results have been highly complementary. My presence in the field was continuous, and the half-directive interviews were on-going during and after the collection and analysis of the quantitative data. Thus, the quantitative methods were situated in the middle of the research process. They permitted a deepening of emerging concepts and clearly revealed some links among them. These links then could be questioned

through qualitative methods. Qualitative data permitted the generation of the questionnaire and an in-depth and contextual understanding of its results.

In order to know what role global teams play for intercultural learning, I looked at the different ways people developed intercultural learning in Techni-Co. I began with a qualitative study of interviews and observation in order to identify a set of important dimensions. I then moved to a quantitative study to look at these dimensions across a broader number of people, to see how general the identified ideas were. After discovering which dimensions were most important and developing some hypotheses about why, I followed up with more interviews, observation and re-examination of the original interviews. This was done to check the validity of the hypotheses, comparing the global team situation to other situations and identifying what makes them unique and facilitative of learning. Then I checked these findings against the literature to verify the characteristics. A synthetic description of the study is contained in Figure 1.

Let us now look deeper into the results. Below, factor analyses of the representations of intercultural business relations and of intercultural interaction and global team membership is developed. Here we examine the dimensions that structure intercultural interaction and the way it is perceived in Techni-Co. Then, connecting both groups of factors will show that intercultural interaction is essential to intercultural learning, and that intercultural interaction inside a global team has a particularly high learning potential.

The structure of representations of intercultural situations at Techni-Co

How do Techni-Co's employees see, live, and experience intercultural interaction? In other words, how do they represent it? Qualitative results suggested a large variety of representations or ways to see intercultural interaction in Techni-Co's business context. Grounded theory was used to distinguish eight dimensions in these representations:⁵

- A. The (high or low) importance for Techni-Co of being a world-wide group
- A.*The (high or low) importance of cooperation between the different subsidiaries
- B. The facility (or difficulty) of cooperation between the subsidiaries
- C. The (central or peripheral) role of the French plant in the Techni-Co group

- D. The (positive or negative) results of the cooperation between the subsidiaries
- E. The (positive or negative) emotions linked to the cooperation between the subsidiaries
- F. The (strong or weak) role of cultural differences
- G. The (high or low) capacity of Techni-Co to adapt to their international markets and customers

47 statements were included for these dimensions, with a series of 4 to 9 items each.

Factor analysis ⁶ of the quantitative data reveals five main dimensions that structure these representations.

Table 1. Matrix of Components of the "Representations" Factors

	1	2	3	4	5
D1. I have learned a lot thanks to the cooperation with members of other subsidiaries.	0.816				
E4. I like working in common with other subsidiaries.	0.765				
B6. I think that I can successfully cooperate with foreigners.	0.723				
B1. It doesn't make any difference to me if I work with local colleagues, or with colleagues from another subsidiary.	0.603				
B4. I have already provoked conflict to get my ideas across when cooperating with some of the other subsidiaries.	0.550				
F7. Cultural differences influence our cooperation.		0.768			
F5. Cultural differences play a poor role in our cooperation, because we are all reasonable people and know how to deal with these differences.		-0.735			
F1. When I work with members of another subsidiary, I really do not have the time to think about cultural differences.		-0.717			
F6. One can discover some cultural differences in		0.599			

the cooperation with other subsidiaries.		
G3. I think that the Techni-Co group has a good capacity to adapt to the particularities of local markets.	0.800	
G2. I think that the Techni-Co group is well introduced in the local market of my country.	0.713	
A*6. Colleagues from other subsidiaries should not contact our customers without our previous agreement and our cooperation.	0.565	
G1. I think that the Techni-Co group has a good capacity to adapt to new situations.	0.519	
E5. I think that our subsidiary is sometimes underestimated by other subsidiaries.	0.791	
D9. The increased coordination of the activities of the subsidiaries also results in the fact that some rules or methods that do not fit our way of working are imposed on us.	0.678	
C2. The French subsidiary plays the role of a mediator between the other subsidiaries.		0.811
C3. Many projects, like “Global Way”, are first introduced in France, before they are generalized to the rest of the group.		0.776

Factor 1 (Alpha = 0.714), “intercultural learning”, clearly emerges from the data, for it does not correspond to one of the initial themes: it integrates “process,” “results,” and “emotions” variables. It evidently stands for “intercultural learning”: the item “I have learned a lot...” contributes most to this factor. It includes variables representing the result of this learning as well as more procedural dimensions (“I like working with foreign colleagues...”, “I already provoked conflict...”). This factor shows quite well the link between positive emotion and learning mentioned in the literature. But one can also see that in the case of intercultural learning, positive emotion in the face of intercultural situations is one important issue of the learning process. The integration of the item B4 seems surprising: someone who voluntarily accepts conflict might not have a high intercultural competence. Yet, this item is also an indicator for intercultural experience: conflict often means a high implication in a situation he

or she is very concerned with. The very meaning of conflict for intercultural learning will be discussed below.

Factor 2 (Alpha = 0.697), “impact of cultural differences”, corresponds to the interpretation of the impact of cultural differences on international cooperation.

Factors 3 to 5 are highly contextual to Techni-Co’s situation. They can not be considered as general theoretical concepts. This is coherent with the Cronbach alphas which are not very good, but acceptable for an exploratory research.

Factor 3 (Alpha = 0.576) could be named “local success through the subsidiaries’ autonomy.” It integrates variables connected to the capacity of international adaptation of Techni-Co as well as some opposition to cooperation between the subsidiaries. The factor is coherent with qualitative results: Techni-Co has intercultural competence thanks to its polycentric structure with fairly autonomous plants that are conscious of their higher capability to deal with local customers.

Factor 4 (Alpha = 0.536) includes a variable concerning emotion and another indicating the bad results of the globalization of the group. It will be called here “tensions against globalization.”

Factor 5 (Alpha = 0.535) concerns the central position of the French subsidiary in the Techni-Co network.

These five factors represent the dimensions that orientate opinions and representations concerning intercultural situations in the Techni-Co group. Based on these factors, further cluster analyses (which will not be detailed here) distinguished four groups of “differently thinking” employees. What is important here is that the members of the Techni-Co group have very different representations of intercultural interaction.

It is noteworthy to bear in mind the definition of intercultural learning, which is the capacity to understand the specificities of intercultural situations and to adapt to them. Two of the factors distinguished above concern this definition of intercultural learning: factor 1, “intercultural learning,” and also factor 2, “impact of cultural differences on interaction.” The understanding of cultural differences seems vital for the interpretation of intercultural situations. Factor 2 does not limit the understanding to an analysis of cultural differences; it describes the belief that these differences highly influence international cooperation. It goes, thus, a little further than the initial definition of intercultural competence. Nevertheless, these two factors will be integrated for further analysis.

Intercultural interaction at Techni-Co

Both the literature and the qualitative results suggest that intercultural learning is rooted in concrete experience. Exploring this link asks for a measure of “international” or “intercultural” interaction. Three dimensions appeared to be relevant after the qualitative half-directive interviews:

- interaction with employees of Techni-Co working in subsidiaries situated in other countries;
- interaction with foreign customers, suppliers, or business partners;
- international interaction independent of the job at Techni-Co such as learning foreign languages, periods abroad, etc.

Each of these dimensions included a series of 5 to 7 items.

Nearly 80% of the questionnaire’s respondents indicate that they are at least sometimes in contact with their foreign colleagues. Yet only 53% meet their colleagues directly: intercultural interaction through phone and e-mail clearly outweighs face-to-face meetings. Qualitative and quantitative data converge concerning this aspect. One question asked if the respondent has “tasks on a group level.” For Techni-Co employees and in the company’s context, this meant membership in a global team. This is the case for 38.5% of the respondents. Factor analysis⁷ gives a more detailed picture of the responses to intercultural interaction measures.

Table 2. Components of intercultural interaction at Techni-Co

	A	B	C
I5. With what frequency are you in contact by phone or e-mail with people from other subsidiaries?	0.878		
I3. With what frequency do you meet people from other subsidiaries?	0.843		
I7. Has the frequency of these contacts increased during the last 5 years?	0.840		
How well do you speak English?	0.586		

J5. With what frequency are you in contact by phone or e-mail with foreign customers, suppliers or business partners?	0.918
J6. Has the frequency of these contacts increased during the last 5 years?	0.899
J4. With what frequency do you meet foreign customers, suppliers or business partners?	0.875
H9. Has your education / professional training prepared you for international jobs?	0.837
How well do you speak foreign languages?	0.792

The factors correspond quite well to the proposed dimensions. Factor A (Alpha = 0.868) will be called “internal interaction”; it describes intercultural interaction within the company. Factor B (Alpha = 0.943), on the opposite, concerns “external interaction,” intercultural interaction in a professional context with foreigners external to the company. The last factor (Alpha = 0.456) will be called here “international education.” It refers to “preparation” for international interaction in general through school, university or professional training, as well as competencies in foreign languages.⁸ These two items remain from a list of questions concerning the job-external international “dimension” of the respondent, including periods abroad and regular contact with foreigners. Cronbach’s Alpha is critically low, which is partially because only two items compose this factor. Thus, this factor cannot be considered as a theoretical dimension: the two items covary but are not the measure of a concept.

Intercultural interaction and intercultural learning

Qualitative results confirmed the relevant literature on the strong link between intercultural interaction and the acquisition of intercultural competence. Before 1998, Techni-Co’s employees were quite hostile to the globalization of the group and to intercultural interaction in their professional activities. The creation of the different global teams improved cooperation between the subsidiaries and coordination of their activities. Additionally, intercultural interaction leveraged intercultural learning inside the company. “Mentalities,” as field actors call it, fundamentally changed, even if these changes took a long time.

Intercultural learning can be observed in the way people talk about international cooperation within the global teams. At their beginning, some years ago, generalizations were used in

talking, such as: “the Germans are . . .” Now, after some time, the team members have started differentiating individuals, and talk about “Mr. X” or “Mrs. Y.”

But this change in mentalities is not spread equally in Techni-Co. Only those employees who, thanks to structural modifications, were increasingly in contact with foreign colleagues changed their minds and progressively acquired intercultural competence. Techni-Co’s former CEO comments on this change in mentalities: *If our company has really changed its mind compared to 40 years ago, it is because of the contact with the others. We are a lot in touch on the technical, sales and on the research level... and the people who meet foreigners have to realize that they first will have to get along with them. Problems reveal to be often the same in all of the subsidiaries. People have to understand that they are not the only ones who know, and that they have to be modest... but that every one has qualities, too, and that they can defend them. And this is what really changed our minds! It forced people to open their eyes, to see, to understand that the others exist, that they have competencies... and that it is worth being interested in them... Globalization has helped us to become much more tolerant, much more complete, and much stronger than 40 years ago.*

The transfer of these new insights to other teams and its members is not automatic. Quantitative data clearly confirm that intercultural learning is dependent on the intercultural interaction of each of the employees. The table below shows the bivariate correlation between the relevant “representation” factors and international interaction.

Table 3. Bivariate correlations with the two aspects of intercultural competence

Representations	Intercultural Interaction			
	Internal Interaction	External Interaction	Internat. Education	Period of Life abroad
Intercultural Learning (factor 1)	0.58***	0.16*	0.41***	0.16*
Impact of Cultural Differences (factor 2)	0.13 (NS)	0.05 (NS)	0.06 (NS)	0.15*

* $p < 0.05$ (bilateral), *** $p < 0.001$ (bilateral), (NS) The correlation is not significant.

Let us firstly look at the correlations with factor 2, the evaluation of cultural differences. International interaction is not significantly correlated to this factor. Only one control variable is significantly correlated with factor 2. “Having lived abroad” leads people to see a stronger

impact of cultural differences. To be in contact with foreigners in a professional context neither increases nor decreases the belief that cultural differences influence these contacts, nor do education or competencies in foreign languages. But an in-depth experience of intercultural situations during a period of life abroad allows one to distinguish cultural differences and gives a clearer understanding of their impact on interaction, even if the significance of this correlation is not very high.

Quantitative data do not allow a complete understanding of factor 2. Analysis of qualitative data brings up another explanation. The group of people who think that cultural differences are high and the ones who contest this assertion are not homogeneous. Among the people who think that culture has a high impact on interaction, some with low international experience have a highly stereotyped and superficial view (for example: “we can not contact the Spanish colleagues easily for in the beginning of the afternoon, they have siesta”). Others with greater experience understand the very essence of culture and consider that it influences cooperation (for example, preference for different ways of decision making in the global team and planning of the teamwork). The group that contradicts the role of cultural differences is composed of at least two subgroups, as well. People who have not experienced intercultural interaction do not know cultural differences and, in consequence, cannot imagine they have an impact. The quantitative data combine them with those employees who, thanks to their international experience, noticed that cultural differences can be overcome by clear communication.

To conclude the analysis of factor 2, it may seem at first thought to be a quite philosophical question, whether one believes in the existence and the impact of cultural differences. There might be two consequences of these factor 2 results: first, looking at the qualitative results, a simple declaration that one distinguishes and understands cultural differences should not be integrated in the measure of intercultural competence. Analysis of this aspect should be refined. Second, the understanding of cultural differences might be a “higher level” of intercultural learning: only a period of life abroad, which means more or less complete immersion in another culture, leads to this learning.

Study of *factor 1*, “intercultural learning,” appears to bring up much clearer results. Linear regressions show the strength of the link between intercultural interaction and intercultural learning: in the Techni-Co case, intercultural learning of the employees is significantly ($F =$

75.95, $p < 0.001$) explained for more than 50% ($r^2 = 0.502$) by intercultural interaction (including its three components). Intercultural interaction significantly explains intercultural learning.

The role of “internal interaction” and global teams

Our results confirm the existing literature on intercultural competence, as described above. Yet more detailed analyses reveal the role of company-internal intercultural interaction and global teams for intercultural learning.

“Internal intercultural interaction” (factor A), that is to say, interaction with members of foreign subsidiaries of Techni-Co, significantly ($F = 99.98$, $p < 0.001$) explains nearly one third of the variation of intercultural learning (factor 1, $r^2 = 0.307$). “International education” (factor C) significantly explains 16.7% ($F = 45.83$, $p < 0.001$). Yet, even if the correlation of “external intercultural interaction” (factor B) with intercultural learning is significant ($F = 5.76$, $p < 0.05$), the impact of contact with foreign customers or suppliers of the Techni-Co group on intercultural learning is very low ($r^2 = 0.021$). This correlation shows the importance of intercultural interaction *inside a company*, which points to, in the Techni-Co case, the importance of global teams for employee intercultural learning.

The correlations of factor 1 with control variables are not in opposition to these results. They show that intercultural learning is stronger for recently recruited employees, high hierarchical levels, sales functions and intercultural team members. Those are the very populations most in contact with their foreign colleagues. A mean value comparison of intercultural learning among global team members (0.413, $N = 90$) and employees who do not belong to a global team (-0.232, $N = 142$) is very highly significant ($F = 25.89$, $p < 0.001$). The positive impact of a global team membership on the acquisition of intercultural competence appears clear.

Why are intercultural teams so important for intercultural learning? And why does interaction with foreign customers not create intercultural competence? The qualitative results of the Techni-Co case study can give a better understanding of these questions. First, all of the subsidiaries of Techni-Co have the same activity, the same products, production incidents or

quality problems. The “context” of the subsidiaries is almost the same, at least concerning customers (international automotive companies). One interviewee explains: *“We know how they [the other subsidiaries] produce... One can know several things about their products. We have our nomenclature. So, if there is a quality problem, for example, we can understand it much more easily than if they were an external supplier.”* Within this well-known context, it is easier to distinguish cultural differences. Another employee says: *“There are two types of [intercultural] contacts. Firstly, there are the customers. I don’t know all of them. Then, there are Techni-Co employees. They are much easier to understand, because I can ask somebody who met him or her, because I can guess in his or her correspondence what kind of personality he or she has. A customer, you meet him once or twice, that’s not enough to really know him.”*

The second element is “hierarchy” in relationships. Techni-Co’s customers, most of them large automotive companies, have a much higher negotiation power in the sense of Porter (1980). Customers control the relationship with their suppliers: Techni-Co has to adjust if they want to keep their markets. High adaptation to the customer is vital and conflict is avoided if possible. The situation is different between the subsidiaries of Techni-Co: they are all equal, as the group was built on a polycentric approach. Here negotiation is used to defend one’s point of view. 30.2% of the respondents to the questionnaire had already provoked conflict to get their ideas across in dealings with other subsidiaries. This level rises to 38.4% if the employees who are not concerned by international interaction are removed from the sample. Qualitative data show that these internal conflicts encourage intercultural learning. A project manager of Techni-Co pointed out: *“When we are with the customers, we try to hold together. But at the very moment when we are no longer in front of the customer, internal conflicts arise again.”*

Situations that have been planned in advance, such as the bi-annual international meetings of the functional directors, are less subject to conflict than are spontaneous interactions. In every-day interaction, such as in the Global Way team, cultural differences are far more visible. A German team member reports: *“In international meetings, you do not perceive cultural differences that much, because people are prepared for them. You cannot see them there. I would say that they are more evident in every-day contacts, in moments that have not been prepared. Then, natural reactions come up again. There you can see the character of every one of us, and the culture which is behind it.”* A Spanish team member confirms: *“It is in the*

Global Way project that I have seen intercultural conflicts inside the group for the first time. In international meetings, every four or five months, during half a day, the participants restrain themselves. We discuss a lot of problems, but there is no conflict. But in the Global Way project, cooperation is going on between ourselves, the Germans, and the French. And we have to discuss a problem until we have found a solution. This is where differences in mentality are revealed and conflicts arise.”

The inductive reasoning followed in this research has brought out the importance of company-internal intercultural interaction for the acquisition of intercultural competence. Global teams appear to encourage most intercultural learning, for interaction takes place in a common context, among equal team members, over a long period of time, and unplanned.

Discussion

I set out in the field to collect data that allow “grounded” theorization. Now that relationships among the concepts of intercultural learning, intercultural interaction and global teams have been established, they need to be compared to existing literature. To begin, literature will be questioned on why company-internal intercultural interaction is more helpful than others for intercultural learning. Then, I will try to explain how the characteristics of teamwork at Techni-Co lead to intercultural learning. Third, literature on diversity and global teams will be discussed. This last area appears to be coherent with the results above, for it shows some of the conditions that are necessary for positive outcomes of diversity in organizations. To conclude, the external validity of this single case-study will be reviewed.

The nature of company-internal intercultural interaction

Organizational learning literature has always pointed to the capability of organizations to encourage learning. Academic research on teams and communities of practice mentions several reasons that appear to give a better understanding of the characteristics of teamwork at Techni-Co that have been identified above. These aspects of teamwork are:

- long-term, spontaneous interaction,
- shared context and language,
- positive emotions and care for the other team members,
- conflict among equal team members.

The concept of communities of practice found in the literature helps to better understand why international teams are so favourable to intercultural learning. Research on communities of practice highlights the social and relational dimension of learning. The concept has been developed to create a theoretical framework for the understanding of strong interaction inside a group. Wenger (1998) defined community of practice as a group of individuals who have a common history, interact frequently, share knowledge, and are faced with similar problems within an organization. Members of this group work together and their activities are partially shared. Brown and Duguid (1998) noticed that knowledge is, for the most part, produced and stored collectively, especially inside communities of practice. The authors (1991) believe that learning and practicing are inextricably linked. Chanal (2000, p. 20) states that the concept of communities of practice can be applied to project teams as long as the functional and historical background of the team members is quite homogeneous.

The new structure of Techni-Co, based on a more matrix organization and cooperation among the subsidiaries, has created communities of practice which are transversal to the subsidiaries. In consequence, they are intercultural groups or global teams. Most of them do not meet frequently, but information and communication technologies have led to the creation of virtual communities of practice. Unlike before, the subsidiaries are increasingly interdependent with regard to tasks such as research, product development, sales negotiations with multinational customers, and the like. This interdependence makes interaction compulsory and important for the subsidiaries. That is why interaction is regular or even permanent and goes on over long-

term periods among the same people. Thanks to this repeated and long-term interaction in communities of practice, intercultural learning is encouraged.

Members of communities of practice work together within a shared context. A common understanding is constructed over time through interaction, which makes of the group a “community of interpretation” (Brown/Duguid 1991). The shared meaning incorporates and encourages learning. A minimum of common language is necessary to initiate this process of sharing interpretations. This language partially existed at Techni-Co, especially in global teams with the same functional background.

Wenger (1998, p. 125) points out that communities of practice are based on strong mutual relationships that might be harmonious or conflict-laden. The factor “intercultural learning” incorporates items linked to both aspects: people at Techni-Co appreciate intercultural cooperation, but also sometimes become confrontational.

Positive emotion stimulates learning (Getz/Laroche 1996). Von Krogh (1998, p. 137) suggests that “care” is important for knowledge creation. Care for somebody raises confidence, empathy and a positive judgment. Organizational relationships that are characterized by high care motivate mutual help, constructive critique and the development of innovation.

Intercultural situations are often linked to emotions, should those be positive or negative. The results show that intercultural interaction within a company can lead to high emotions that at Techni-Co are mostly positive. It appears that intercultural interaction with a customer or another business partner external to the firm is less able to create emotions. Relationships are more “technical,” more “professional,” more distant. The learning processes that are linked to these types of interactions are influenced by them; intercultural learning is much stronger with internal interactions where affective involvement in the relationship is stronger.

Paradoxically, negative emotion can also help intercultural learning. Deschamps and Devos (1993) suggest that *conflict* plays an important role for changes in values. Intercultural learning in the Techni-Co case corresponds to a change in values, moving toward elements of intercultural competence, such as tolerance and an acceptance of difference. Conflict is a particular form of interaction including de-structuration and re-structuration. This way, conflict can be considered “one of the most important engines of change” (Deschamps/Devos 1993, p.

27). Negative emotions linked to the opposition between two particular persons are often temporary and do not fundamentally modify people's thinking. Yet, conflict is capable of making people conscious of something. These theoretical reflections converge with the results: at Techni-Co, the Global Way project group was confronted with very important internal conflicts, but the team members were, at the same time, the employees who had the highest intercultural learning revealed in the qualitative results.

Eisenhardt et al. (1997) suggest that conflict over issues is not only likely in top-management teams, but also valuable. Cultural diversity means a high variety of values, behavior and ways of working; global teams are even often set up because of the diversity of points of view inside the team. In consequence, conflict appears to be a logical outcome. Empirical studies show that diversity in teams produces more conflict (cf. Kochan et al. 2003). If conflict in teams is to be constructive and lead to valuable results, several conditions have to exist (Eisenhardt et al. 1997). Two of them are "balanced power structures" and common goals (Ibid., p. 81). Common goals have not always existed in Techni-Co's global teams, but they started emerging after a while (the Global Way project team was one of the teams where common goals took a long time to arise). But a clear characteristic of Techni-Co's international teams are "balanced power structures," which means well-defined areas of responsibility and decentralization of power. Techni-Co's functional global teams (e.g. the group of purchasing directors of the different subsidiaries) go even further: everyone's position in the team is equal, even if one of them is the group coordinator and therefore responsible for the work process in the team. The absence of hierarchy among team members encourages conflict and also helps to find constructive outcomes.

The literature discussed above confirms that the composition of factor 1, "intercultural learning," is coherent in itself: it integrates positive emotion as well as conflict. Yet, the international and intercultural dimension is not explicitly mentioned. That is why literature on diversity and global teams will now be examined.

The conception of cultural diversity in multinational companies

Intercultural interaction inside a company is possible only if cultural diversity exists. Research on cultural diversity has led to contradictory results. Following the type of diversity considered (racial or ethnical, nationality, functions, age or gender), results differ (Milliken/Martins 1996). Williams/O'Reilly (1998) conclude a review of 40 years of literature with the remark that cultural diversity has no strategic impact for companies, unless contextual factors are considered. In addition to the positive consequences of diversity mentioned in the introduction of this paper, cultural diversity can sometimes be problematic. Besides the difficulties of mutual understanding and, consequently, of cooperation, diversity has a negative impact on affection, even if this impact decreases over time (Watson et al. 1993).

The positive impact of cultural diversity that appears in the results is, thus, linked to contextual factors. Richard (2000) showed that racial diversity inside a company increases performance only if the company finds itself in a context of growth. Kochan et al. (2003, p. 6) deliver a much more complete framework which states that organizational context (organizational culture, business strategy and human resource policies and practices) moderates the link between diversity, team processes and outcomes. The qualitative work of Ely/Thomas (2001) gives more details concerning this organizational context. Even if their research concerns cultural diversity inside the United States, it is useful for a better understanding of research in international management. The authors explain the contradictory results concerning the impact of diversity on work groups by the perspectives through which diversity is considered: the "integration and learning perspective" (really valuing diversity), the "access and legitimacy perspective" (aiming at better contact with the customers) or the "discrimination and fairness perspective." According to the authors, only the "integration and learning perspective" leads to a positive impact of diversity on group performance. There are several conditions for a positive effect of cultural diversity on performance:

- Organizational members have to share the representation of diversity as a potentially valuable resource for learning;
- Cultural diversity shall not only exist "on the surface," but has to be integrated into working processes and methods;
- The members of one or another cultural group are equal regarding power and hierarchy;

- If conflicts arise among the cultural groups, problems are openly discussed.

Within this context, diversity can be a resource that improves the vision of the job, strategic decisions, and the way of working.

Dirks (1995) suggests that a multinational organization has to make efforts for the institutionalization of cultural diversity if it wants to reach a global or transnational level as described by Ghoshal/Nohria (1993). Strategic planning involving cultural diversity and acceptance of it are, in consequence, necessary for multinational organizations.

At Techni-Co, diversity is considered following the “learning and integration perspective” mentioned by Ely and Thomas (2001). The group is polycentric and truly multinational, in order to benefit from the diverse points of view of the different cultural groups. Equality of group members has led to the attributes summarized above: long-term, spontaneous interaction, shared context, positive emotion, but also conflict.

External validity and limitations of the study

The characteristics that lead to strength in theory building from case studies (able to create testable, novel and empirically valid theory; see above) also lead to weaknesses. Many grounded case studies result in modest theories (Eisenhardt 1989, p. 547). They are essentially theories about specific phenomena; they are not theories about organization in any grand sense. This is clearly the case here with the Techni-Co case study. Secondly, the risks are that the theory describes a very idiosyncratic phenomenon or that the theorist is unable to raise the level of generality of the theory. This issue is linked to the question about external validity, which is a major critical point in case study research. Results of (especially single) case studies simply cannot be generalized. Even for research based on multiple case studies, statistical generalization is impossible. But Yin (1989) points out that if the context and the phenomenon are described in detail, analytical generalization can be considered. In other words, the level of generality of the theory is raised while considering the context in which it was developed.

First of all, the aim of the Techni-Co study was to find new directions for the understanding of intercultural learning. As stated above, the results are to be considered as (empirically and theoretically founded) propositions that are to be tested on a larger sample of MNCs.

But how far can the results be generalized up to now? Some arguments promote careful analytical generalization. They essentially concern the coherence with existing research:

- On intercultural learning processes (largely based on intercultural interaction);
- On organizational learning (groups and organizations encouraging learning processes);
- On the effect of internal diversity on the organization (and in particular with the framework of Ely/Thomas 2001).

This study proposes connections between these domains and refines the understanding of intercultural learning in MNCs without contradicting existing theory. Two aspects need to be considered when discussing how far extrapolation of the results is possible: what conclusions might be transferred, and in what contexts. Contexts will be addressed now; extrapolation of the results is addressed in the conclusion.

I think that the results above are likely to be found in other MNCs with the following characteristics:

- Regarding organizational context (see Kochan et al. 2003), the MNC has to be in an “integration and learning perspective” (in the sense of Ely/Thomas 2001, see above).
- Such a perspective seems not compatible with an ethnocentric approach (Perlmutter 1969) of internationalization where the country and culture of origin of the organization are considered as the only valuable reference. A polycentric or geocentric approach is necessary if diversity is to develop benefits.
- Concerning organizational structure, the MNC has to have several global teams that play an important role in strategic decision-making and project management. Without involvement of the team members in the teamwork (and, thus, intercultural interaction), intercultural learning certainly not is stimulated.

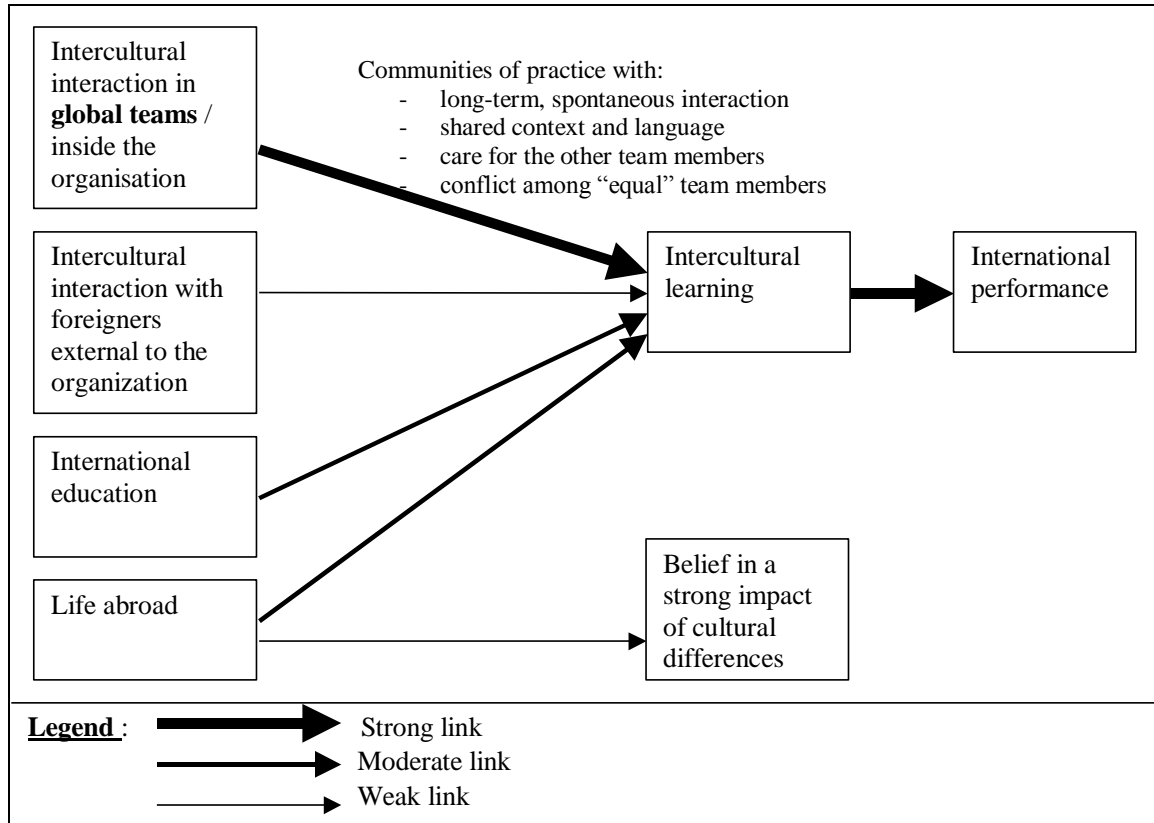
Of course, only larger-scale deductive research could give a definitive answer concerning generalization of results. In the meantime, this study leads to some novel factors of intercultural learning in MNCs.

Conclusion

This study aimed at development of a better understanding of intercultural learning in MNCs. An in-depth case study in the French multinational Techni-Co, combining qualitative and quantitative methods and data, confirmed the existing literature on the importance of intercultural interaction for intercultural learning. The quantitative methods and the design of the study are inductive and exploratory; they deliver some initial findings: here, intercultural interaction explains more than 50% of intercultural learning. It is, in consequence, the most important, but not the only factor in intercultural learning.

The results go further than previous research by revealing the role of company-internal intercultural interaction and global teams for the acquisition of intercultural competence. Intercultural interaction among members of different subsidiaries of the Techni-Co group explained about one third of intercultural learning, while contact with foreign customers had a very small impact. In other words, intercultural learning becomes possible thanks to cultural diversity inside the organization. Under certain conditions, cultural diversity initiates and maintains an intercultural learning process. This process is mainly present in global teams. Four aspects of the functioning of global teams encourage intercultural learning. They are: long-time, spontaneous interaction; common language and values; positive emotion; and conflict among equal team members.

Figure 2. Results: global teams, intercultural learning and international performance at Techni-Co



The results also show that intercultural learning and the belief that cultural differences exist between nations are two different factors. In consequence, the acquisition of intercultural competence is a multidimensional concept. While the “learning” aspect is strongly linked to intercultural interaction, the belief in cultural differences is not. Further research will be necessary to analyze the link between both of these dimensions, and the factors of recognition of cultural differences.

The acquisition of intercultural competence in a MNC appears to be a process that is split up, for it is mostly based on individual learning. Yet, this learning is very important for the organization. In the Techni-Co case, step-by-step, it completely modified corporate culture and the relationships among the subsidiaries, and between the company and its environment. It appears that this learning process incorporates the very benefits of cultural diversity, which is sometimes contested or misunderstood.

Authors often claim a link between global teams and the performance of an MNC, but this link has not been established clearly or quantified. It is well known that other (contextual) factors have to be taken into account. This study suggests one of those: intercultural competence. Global teams are able to facilitate the acquisition of intercultural competence, which can be a strategic competence for MNCs and, in turn, leverage the company's performance.

On a theoretical level, a link between organizational learning theories and work on communities of practice on the one hand, and the literatures on intercultural competence and diversity on the other hand, has been empirically established. This link might inspire further research on these topics. From a managerial point of view, the results identify learning possibilities related to global teams, and describe the factors that enhance these possibilities.

However, this study represents only a first exploration of the research question. Its limitations consist of a conceptual framework that is insufficiently developed, and a research design based on a unique case study. Future investigations are necessary to improve knowledge on intercultural competence in organizations and to help international companies understand and then implement methods so that they can succeed in an intercultural and complex environment.

Endnotes

¹ Techni-Co is a fictitious name, to keep the group's identity anonymous.

² The hierarchy based on geographical division of work is complemented by functional "board members" (e.g. for quality, research and development, sales) and managers for the main product categories.

³ Employees who were not concerned with the international aspect of the group (especially workers in the production department) were excluded from the sample.

⁴ Please remember that learning has been defined above as the acquisition or modification of a representation of the environment. The concept of representation has thus been used as an operationalization of learning.

⁵ The letters in front of the categories correspond to those designating the items, see below.

⁶ Method of principal components, Varimax rotation. The eigenvalues of the factors are greater than 1. The 5-factor solution explains 60,1% of the variance. Only loadings greater than 0.5 are reported.

⁷ For this analysis with the method of principal components, a Varimax rotation was chosen. This three-factor solution (eigenvalues > 1) restitutes 79.64% of the variance of the items. Only loading greater than 0.5 are reported.

⁸ This indicator has been calculated from responses to the number of foreign languages spoken and the level in any of these languages.

References

- Adler, N., A Typology of Management Studies Involving Culture, *Journal of International Business Studies*, 14, 2, 1983, pp. 29–45.
- Adler, N. A., *International Dimensions of Organizational Behavior*, Cincinnati: South-Western 2002.
- Amado, G., Angoisse et créativité face aux différences culturelles, *Les Cahiers de l'ENSPTT*, 9, 1998, pp. 85–90.
- Aubret, J. et al., *Savoir et pouvoir: les compétences en question*, Paris: Presses Universitaires de France 1993.
- Barmeyer, C., Le coaching interculturel: une mesure pour augmenter les compétences internationales, *Congrès de l'AGRH*, Paris 2000.
- Bauchard, F. et al., Fusions: la guerre des cultures, *Les Enjeux*, 138, 2001, pp. 38–51.
- Bender, D. E., Intercultural Competence as a Competitive Advantage, *HSMAI Marketing Review*, winter 1996.
- Berger, P. L. / Luckmann, T. *La construction sociale de la réalité*, New York: Doubleday 1966.
- Bittner, A., Psychologische Aspekte der Vorbereitung und des Trainings von Fach- und Führungskräften auf einen Auslandseinsatz, in Thomas, A., *Psychologie interkulturellen Handelns*, Göttingen: Hogrefe 1996, pp. 317–340.
- Bittner, A. / Reisch, B., *Interkulturelles Personalmanagement*, Wiesbaden: Gabler 1994.
- Black, J. S., The Relationship of Personal Characteristics with the Adjustment of Japanese Expatriate Managers, *Management International Review*, 30, 2, 1990, pp. 119–134.
- Bolten, J., Integrierte interkulturelle Trainings als Möglichkeit der Effizienzsteigerung und Kostensenkung in der internationalen Personalentwicklung, in Barmeyer, C. / Bolten, J. (eds.), *Interkulturelle Personalorganisation*, Berlin: Verlag Wissenschaft und Praxis 1998, pp. 157–178.
- Bosche, M., *Le management interculturel*, Paris: Nathan 1993.
- Brown, J. S. / Duguid, P., Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation, *Organization Science*, 2, 1, 1991, pp. 40–57.
- Brown, J. S. / Duguid, P., Organizing Knowledge, *California Management Review*, 40, 3, 1998, pp. 90–111.
- Bush, V. D et al., Managing Culturally Diverse Buyer-Seller Relationships: The Role of Intercultural Disposition and Adaptive Selling in Developing Intercultural Communication Competence, *Journal of the Academy of Marketing Science*, 29, 4, 2001, pp. 391–404.
- Cerdin, J.-L. / Peretti, J.-M., Les déterminants de l'adaptation des cadres français à l'étranger, *Revue Française de Gestion*, 129, 2000, pp. 58–66.
- Chanal, V., Communautés de pratique et management par projet: à propos de l'ouvrage de Wenger (1998): Communities of Practice: Learning, Meaning and Identity, *Management*, 3, 1, 2000, p. 30.
- Chevrier, S., *Le management des équipes interculturelles*, Paris: Presses Universitaires de France 2000.
- Clarke, C. / Hammer, M. R., Predictors of Japanese and American Managers Job Success, Personal Adjustment, and Intercultural Interaction Effectiveness, *Management International Review*, 35, 2, 1995, pp. 153–170.
- Cui, G. / Van den Berg, S., Testing the Construct Validity of Intercultural Effectiveness, *International Journal of Intercultural Relations*, 15, 2, 1991, pp. 227–241.
- Deller, J., Interkulturelle Eignungsdiagnostik, in Thomas, A., *Psychologie interkulturellen Handelns*, Göttingen, Hogrefe 1996, pp. 283–316.

- Denoux, P., La recherche interculturelle en France, in Abdallah-Preteuille, M. / Thomas, A., *Relations et Apprentissages Interculturels*, Paris: Armand Colin 1995, pp. 161–170.
- Deschamps, J.-C. / Devos, T., Valeurs, cultures et changement, *Intercultures*, 21, 1993, pp. 17–28.
- Desjeux, D., L'interculturel entre réalité et imaginaire, *Les Cahiers de l'ENSPTT*, 9, 1998, pp. 91–96.
- D'Iribarne, P., *La logique de l'honneur*, Paris: Editions du Seuil 1989.
- DiStefano, J. J. / Maznevski, M. L., Creating Value with Diverse Teams in Global Management, *Organizational Dynamics*, 29, 1, 2000, pp. 45–63.
- Dirks, D., The Quest for Organizational Competence: Japanese Management Abroad, *Management International Review*, 35, 2, Special Issue, 1995, pp. 75–90.
- Doré, F. / Mercier, P., *Les fondements de l'apprentissage et de la cognition*, Lille: Presses Universitaires de Lille, Gaëtan Morin Editeur 1992.
- Dyer W.G. / Wilkins, A. I., Better Stories, Not Better Constructs, to Generate Better Theory: A Rejoinder to Eisenhardt, *Academy of Management Review*, 16, 3, 1991, pp. 613–619.
- Eisenhardt, K. M., Building Theories from Case Study Research, *Academy of Management Review*, 14, 4, 1989, pp. 532–550.
- Eisenhardt, K. M. / Kahwajy, J. L. / Bourgeois III, L. J., How Management Teams Can Have a Good Fight, *Harvard Business Review*, 75, 4, 1997, pp. 77–85.
- Eubel-Kasper, K., Interkulturelle Kompetenz als strategischer Erfolgsfaktor: Erläutert am Beispiel des Förderkreises, in Kooper, E. / Kiechl, R. (eds.), *Globalisierung: von der Vision zur Praxis, Methoden und Ansätze zur Entwicklung interkultureller Kompetenz*, Zürich: Versus 1997, pp. 139–158.
- Ely, R. J. / Thomas, D. A., Cultural Diversity at Work: The Effects of Diversity Perspectives on Work Group Processes and Outcomes, *Administrative Science Quarterly*, 46, 2, 2001, pp. 229–273.
- Franck, G., Acquisitions américaines: le management français en question, *Revue Française de Gestion*, 131, 2000, pp. 136–144.
- Funke, P., L'interaction interculturelle et le processus de compréhension d'une culture étrangère, in Abdallah-Preteuille, M. / Thomas, A., *Relations et apprentissages interculturels*, Paris: Armand Colin 1995, pp.81–96.
- Gauthey, F., Logique d'entreprise et réalité interculturelle, *Les Cahiers de l'ENSPTT*, 9, 1998, pp. 13–18.
- Gauthey, F. et al., *Leaders sans frontières: le défi des différences*, Paris: McGraw-Hill 1988.
- Getz, I. / Laroche, H., Créativité et cognition dans les organisations: panorama du rôle des émotions, *Cognition et créativité en contexte organisationnel, le rôle des émotions. 2^e Journée d'étude*, Paris, 13/06/1996, ESCP, pp. 6–9.
- Ghoshal, S. / Nohria, N., Horses for Courses: Organizational Forms for Multinational Corporations, *Sloan Management Review*, 34, 2, 1993, pp. 23–35.
- Gohard-Radenkovic, A., L'apprentissage de l'interculturel, *Les Cahiers de l'ENSPTT*, 9, 1998.
- Glaser, B. G., *Theoretical Sensivity: Advances in the Methodology of Grounded Theory*, Mill Valley: The Sociology Press 1978.
- Glaser, B. G. / Strauss, A., *The Discovery of Grounded Theory*, New York: Alsine de Gruyter 1967.
- Hall, E. T. / Hall, M. R., *Guide du comportement dans les affaires internationales*, Paris: Seuil 1990.
- Hamilton, M. A., The Structural Dynamics of Workforce Heterogeneity: Attaining a Competitive Advantage from Diversity, *Academy of Management Congress*, Washington, August 4-8, 2001.

- Hofstede, G., *Cultures and Organizations: Software of the Mind*, Berkshire: McGraw-Hill 1991.
- Hofstede, G., *Vivre dans un monde multiculturel*, Paris: Les Editions d'Organisation 1994.
- Iles, P., Learning to Work with Difference, *Personnel Review*, 24, 6, 1995, pp. 44–60.
- Kiechl, R., Interkulturelle Kompetenz, in Kooper, E. / Kiechl, R. (eds.), *Globalisierung: Von der Vision zur Praxis. Methoden und Ansätze zur Entwicklung interkultureller Kompetenz*, Zürich: Versus 1997, pp. 11–29.
- Klimecki, R. G. / Probst, G., Interkulturelles Lernen, in Haller, M. et al. (eds.), *Globalisierung der Wirtschaft: Einwirkungen auf die Betriebswirtschaftslehre, 54. wissenschaftliche Jahrestagung des Verbandes des Hochschullehrer für Betriebswirtschaft e.V., St. Gallen*, Bern: Paul Haupt 1993, pp. 243–272.
- Knapp, K., Interkulturelle Kommunikationsfähigkeit als Qualifikationsmerkmal für die Wirtschaft, in Bolten, J. (ed.), *Cross Culture: Interkulturelles Handeln in der Wirtschaft*, Berlin: Wissenschaft und Praxis 1995, pp. 8–23.
- Knapp, K. / Knapp-Potthoff, A., Interkulturelle Kommunikation. *Zeitschrift für Fremdsprachenforschung*, 1, 1990, pp. 62–93.
- Kochan, T. (eds.), The Effects of Diversity on Business Performance: Report of the Diversity Research Network, *Human Resource Management*, 42, 1, 2003, pp. 3–21.
- Kühlmann, T. M. / Stahl, G. K., Diagnose interkultureller Kompetenz: Entwicklung und Evaluierung eines Assessment Centers, in Barmeyer, C. / Bolten, J., *Interkulturelle Personalorganisation*, Berlin: Wissenschaft und Praxis 1998, pp. 213–224.
- Langley, A., Strategies for Theorizing from Process Data, *Academy of Management Review*, 24, 4, 1999, pp. 691–710.
- Laurent, A., The Cultural Diversity of Western Conceptions of Management, *International Studies of Management and Organization*, 13, 1/2, 1983, pp. 75–97.
- L'Hermitte, I. *Différences culturelles et coopérations inter-entreprises: le cas des entreprises en joint-venture internationales*, Doctoral thesis, Université Paris Dauphine: Paris 1998.
- Milliken, F. J. / Martins, L. L., Searching for Common Threads: Understanding the Multiple Effects of Diversity in Organizational Groups, *Academy of Management Review*, 21, 2, 1996, pp. 402–433.
- Müller, S. Auslandsorientierung als Zielsetzung der Personalentwicklung, in Thomas, A. (eds.), *Psychologie interkulturellen Handelns*, Göttingen: Hogrefe 1996, pp. 341–364.
- Murphy-Lejeune, E., Apprentissages interculturels: quels objets? *Intercultures*, 20, 1993, pp. 87–96.
- Nicklas, H., Identité culturelle et conflits entre cultures, in Abdallah-Preteille, M. / Thomas, A., *Relations et apprentissages interculturels*, Paris: Armand Colin 1995, pp. 35–46.
- Nonaka, I., A Dynamic Theory of Organizational Knowledge Creation, *Organization Science*, 5, 1, 1994, pp. 14–37.
- Opitz, S., *Interkulturelle Kompetenz Skandinavien – Deutschland*, Düsseldorf: Raabe 1997.
- Pateau, J., *Une étrange alchimie: la dimension interculturelle dans la coopération franco-allemande*, Levallois-Perret: CIRAC 1998.
- Peretti, J.-M., Le management international des ressources humaines, in Bosche, M., *Le management interculturel*, Paris: Nathan 1993, pp. 169–180.
- Perlmutter, H. V., The Tortuous Evolution of the Multinational Corporation, *Columbia Journal of World Business*, jan.-feb. 1969, pp. 9–18.

- Porter, M., *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, New York: Free Press 1980.
- Ralston D. A. et al., Do Expatriates Change Their Behavior to Fit a Foreign Culture?, *Management International Review*, 35, 1, 1995, pp. 109–122.
- Richard, O. C., Racial Diversity, Business Strategy, and Firm Performance: A Resource-Based View, *Academy of Management Journal*, 43, 2, 2000, pp. 164–177.
- Saner, R. / Yiu, L. / Sondergaard, M., Business Diplomacy Management: A Core Competency for Global Companies, *The Academy of Management Executive*, 14, 1, 2000, pp. 80–92.
- Snow, C. C., Use Transnational Teams to Globalize Your Company, *Organizational Dynamics*, 24, 4, 1996, pp. 50–67.
- Stake, R., Case Studies, in Denzin, N. K. / Lincoln, Y. S., *Handbook of Qualitative Research*, Thousand Oaks, California: Sage 1994, pp. 236–247.
- Strauss, A. / Corbin, J., Grounded Theory Methodology, in Denzin, N. K./Lincoln, Y. S. (eds.), *Handbook of Qualitative Research*, Thousand Oaks, California: Sage 1994, pp. 273–285.
- Usunier, J.-C., Management interculturel, In Simon, Y./Joffre, P., *Encyclopédie de Gestion*, 2, Paris: Economica 1997, pp. 1809–1818.
- Van Maanen, J. / Laurent, A., The Flow of Culture: Some Notes on Globalization and the Multinational Corporation, in Ghoshal, S. / Westney, E., *Organization Theory and the Multinational Corporation*, New York: Macmillan 1993, pp. 275–312.
- Von Krogh, G., Care in Knowledge Creation, *California Management Review*, 40, 3, 1998, pp. 133–153.
- Watson, W. E. et al., Cultural Diversity's Impact on Interaction Process and Performance: Comparing Homogeneous and Diverse Task Groups, *Academy of Management Journal*, 36, 3, 1993, pp. 590–602.
- Wenger, E., *Communities of Practice: Learning, Meaning and Identity*, Cambridge: Cambridge University Press 1998.
- Yin, R. K., *Case Study Research, Design and Methods*, London: Sage 1989.